

**REMARKS**

**Status of Claims**

Upon entry of the Amendment, which is respectfully requested, claims 1, 2, 4, 7-12, 14, 17-24, 26 and 19-32 will be all the claims pending in the present application.

Claim 1 is amended to incorporate the subject matter of claims 3 and 5.

Claim 11 is amended to incorporate the subject matter of claims 13 and 15.

Claim 21 is amended to incorporate the subject matter of claims 25 and 27.

Claims 6, 16 and 28 are amended to clearly recite that the organic compound is the non-electrolyte.

Claims 2, 4, 11, 12, 14, 21, 24, and 26 are amended to correct for certain informalities.

Claims 3, 5, 13, 15, 25, and 27 are cancelled without prejudice or disclaimer.

No new matter is added.

**Response to Claim Objections**

Claims 2, 4, 12, 14 and 26 are objected to because of certain formalities.

Applicants respectfully submit that the amendments to claims 2, 4, 12, 14 and 26 have overcome the objection to the claims, and therefore, reconsideration and withdrawal of the claim objections is respectfully requested.

**Response to Rejection of Claims under 35 U.S.C. § 112**

A. Claims 6, 16 and 28 are rejected under 35 U.S.C. §112, first paragraph.

In view of the amendments to claims 6, 16 and 28, Applicants respectfully submit that the §112, first paragraph rejection has been overcome. Therefore, reconsideration and withdrawal of the rejection is respectfully requested.

**B.** Claims 1-32 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

**(i)** Claims 1, 11 and 21

Applicants respectfully submit that the amendments to claim 1, 11 and 21 have overcome the §112, second paragraph rejection of the claims.

**(ii)** Claims 2, 12 and 24

Applicants respectfully submit that a the compound as recited in claim 1, may be either an organic compound different from the fuel used in the fuel cell, or a strong electrolyte. Therefore, the compound of claim 2 is different from the compound of claim 5, and hence, there is no contradiction in the recitation of claims 2 and 5.

**(iii)** Claims 5, 6, 15, 16, 27 and 28

Applicants respectfully submit that it is well know in the art that a strong electrolyte is a solute that completely, or almost completely, ionizes or dissociates in a solution. A person of ordinary skill, therefore, would know whether a certain electrolyte is a strong electrolytes. Therefore, Applicants respectfully submit that the subject matter of claims 5, 6, 15, 16, 27 and 28 are not indefinite.

In view of the above, reconsideration and withdrawal of the §112, second paragraph rejections of claims 1-32 is respectfully requested.

**Response to Rejection of Claims under 35 U.S.C. § 102**

Claims 1-5, 10-15, 20-27 and 32 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Prakash et al. (U.S. Patent No. 6,444,343 B1).

Present claim 1 recites the use of a compound dissolved in the liquid organic fuel which is either an organic compound different from the liquid organic fuel or the compound is a strong electrolyte.

At page 12, lines 25 to 33 of the present specification it is stated that either one of a strong electrolyte compound or an organic compound is preferably selected. It is further stated that if the unit cells are connected in series it is possible, for example, when the total voltage exceeds 1V, that electrolysis of the water is generated. Under such circumstances, an electrolyte is not used, and instead an organic compound is used to generate an osmotic pressure without causing electrolysis of the water.

Prakash discloses a polymer electrolyte membrane which can be used in a direct methanol fuel cell to reduce methanol crossover. The Examiner specifically directs us to column 13, line 63 *et seq.* of Prakash. At column 14, lines 2-9, it is stated that the best surfactants are ammonium, potassium, or sodium salts of a completely fluorinated aliphatic monocarboxylic acids and perfluoroalkyl sulfonates. Although Prakash discloses the use of the surfactant used above, the surfactant is used in combination with an electrolyte. See column 13, lines 66-67 of

Prakash. Therefore, Prakash does not teach each and every element of amended claims 1, 11 and 21..

In view of the above, Applicants respectfully submit that claims 1, 11 and 21 are patentably distinguishable over Prakash. Claims 2-5, 10, 12-15, 20, 22-27 and 32 are patentable, at least by virtue of their dependence from claim 1. Therefore, Applicants respectfully request reconsideration and withdrawal of the §102 rejection based on Prakash.

**Response to Rejection of Claims under 35 U.S.C. § 103**

Claims 7-9, 17-19 and 29-31 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Prakash.

Applicants respectfully submit that claims 7-9, 17-19 and 29-31 are patentably distinguishable over Prakash, at least by virtue of their dependence from claims 1, 11, and 21. Therefore, reconsideration and withdrawal of the §103 rejection based on Prakash is respectfully requested.

**Conclusion**

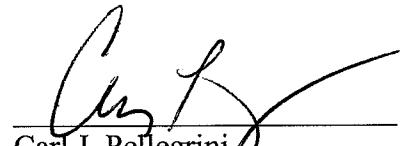
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No.: 10/519,550

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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